

Claims

1. Method for providing a predefined quality of service between two communication partners, wherein the two communication partners can be connected by at least two connections, a first connection handled by a first entity and a second connection handled by a second entity, and wherein the method comprises the steps of:
5 receiving or defining a service level agreement in a service level specification, distributing the service level specification to the first and the second entity, controlling the first and the second entity and thus ensuring that the sum of the provided quality of service on connections between the two communication partners
10 does not exceed limits defined in the service level specification.
2. Method according to claim 1, wherein the step of controlling is performed by a control node that is connected to the first and the second network entity.
3. Method according to any of the preceding claims wherein at least one network entity
15 is connected to and adapted to be controlled by more than one control node and the control node can control more than one network entity.
4. Method according to any of the preceding claims, wherein the distribution is performed by means of partitioning such that the first network entity handles a first kind of service requests and the second network entity handles a second kind of
20 service requests.
5. Method according to any of the claims 1 to 3, wherein the distribution is performed by means of replication such that each of the first and the second network entities handles up to a certain share of the quality of service permitted by the service level agreement.
- 25 6. Method according to any of the preceding claims, wherein a network entity is an edge node.
7. Method according to any of the preceding claims, wherein a control node is a bandwidth broker.

8. Method according to claim 7, wherein the bandwidth broker communicates to edge nodes by using multicasting.
9. Edge node (EN31) for providing a connection with a predefined quality of service between two communication partners, comprising a control unit (PU31) for
5 controlling the quality of service of the connection according to instructions received from a bandwidth broker (BB41), a storage (STO31) for storing said instructions, and an input output unit (IOU31) for providing the connection and receiving said instructions.
10. Edge node according to claim 9 wherein the input output unit is further adapted to
10 receive information from further edge nodes providing a connection between the communication partners and wherein the control unit is adapted to process the information according to instructions received from a bandwidth broker.
11. Edge node according to any of the claims 9 to 12, wherein the control unit is adapted
15 to control the quality of service of a connection according to instructions received from a further bandwidth broker and the input output unit is adapted to receive said instructions.
12. Edge node according to any of the claims 9 to 11, further comprising a charging unit (CU31) for collecting charging information related to a connection.
13. Bandwidth broker (BB41) for providing a quality of service on at least two
20 connections between two communication partners according to a service level agreement defined in at least one service specification, comprising a control unit (PU41) adapted to control edge nodes to ensure that the quality of service provided on the connections does not exceed limits defined in the service specification, a storage (STO41) for storing the service specification and an input output unit (IOU41) to
25 communicate with the edge node.
14. Bandwidth broker according to claim 13, wherein the control unit is adapted to communicate with a further bandwidth broker and to negotiate a service level agreement with said further bandwidth broker.

15. Bandwidth broker according to claim 13 or 14, wherein the input output unit is adapted to communicate with edge nodes by means of multicasting.